

IN THE CLAIMS:

1 1. (PREVIOUSLY PRESENTED) A method for modifying and testing a network proto-
2 col stack that includes a plurality of protocols, the method comprising:

3 executing a test of said network protocol stack using a processing system, the test
4 modeling each protocol of said plurality of protocols of said protocol stack as separate
5 objects, the test simulating communication between a plurality of devices using said net-
6 work protocol stack;

7 receiving a command comprising code to modify one of said plurality of protocols
8 in said protocol stack; and

9 performing said modification on said one of said plurality of protocols in said pro-
10 tocol stack while the test is executing, by changing said separate object corresponding to
11 said one of said plurality of protocols in said protocol stack.

1 2. (ORIGINAL) The method of claim 1 wherein said command is received in interpreted
2 code.

1 3. (PREVIOUSLY PRESENTED) The method of claim 1 further comprising:

2 determining said one of said plurality of protocols in said protocol stack to modify
3 responsive to receiving said command.

1 4. (ORIGINAL) The method of claim 1 further comprising:

2 determining whether said command is adding a message to said one of said plu-
3 rality of protocols; and

4 adding said message to said one of said plurality of protocols.

1 5. (ORIGINAL) The method of claim 1 further comprising:

2 determining whether said command is to remove a message from said one of said
3 plurality of protocols; and

4 removing said message from said protocol.

1 6. (ORIGINAL) The method of claim 1 further comprising:

2 determining whether said command is to modify an existing message in said one
3 of said plurality of protocols;

4 removing said existing message from said one of said plurality of protocols; and

5 adding a new message to said one of said plurality of protocols including said ex-
6 isting message with modifications in said command.

1 7. (PREVIOUSLY PRESENTED) The method of claim 1 further comprising:

2 determining whether said command is to modify a state machine of said one of
3 said plurality of protocols; and

4 modifying said state machine of said one of said plurality of protocols responsive
5 to said command.

1 8. (PREVIOUSLY PRESENTED) An apparatus for modifying and testing a network pro-
2 tocol stack that includes a plurality of protocols, the apparatus comprising:

3 means for executing a test of said network protocol stack, the test modeling each
4 protocol of said plurality of protocols of said protocol stack as separate objects, the test
5 simulating communication between a plurality of devices using said network protocol
6 stack;

7 means for receiving a command comprising code to modify one of said plurality
8 of protocols in said protocol stack; and

9 means for performing said modification on said one of said plurality of protocols
10 in said protocol stack while the test is executing, by changing said separate object corre-
11 sponding to said one of said plurality of protocols in said protocol stack.

1 9. (ORIGINAL) The apparatus of claim 8 wherein said command is received in inter-
2 preted code.

1 10. (PREVIOUSLY PRESENTED) The apparatus of claim 8 further comprising:

2 means for determining said one of said plurality of protocols in said protocol
3 stack to modify responsive to receiving said command.

1 11. (ORIGINAL) The apparatus of claim 8 further comprising:

2 means for determining whether said command is adding a message to said one of
3 said plurality of protocols;

4 means for adding said message to said one of said plurality of protocols.

1 12. (ORIGINAL) The apparatus of claim 8 further comprising:

2 means for determining whether said command is to remove a message from said
3 one of said plurality of protocols; and

4 means for removing said message from said protocol.

1 13. (ORIGINAL) The apparatus of claim 8 further comprising:

2 means for determining whether said command is to modify an existing message in
3 said one of said plurality of protocols;

4 means for removing said existing message from said one of said plurality of pro-
5 tocols; and

6 means for adding a new message to said one of said plurality of protocols includ-
7 ing said existing message with modifications in said command.

1 14. (PREVIOUSLY PRESENTED) The apparatus of claim 8 further comprising:

2 means for determining whether said command is to modify a state machine of
3 said one of said plurality of protocols; and

4 means for modifying said state machine of said one of said plurality of protocols
5 responsive to said command.

1 15. (PREVIOUSLY PRESENTED) A computer readable medium carrying one or more
2 instructions for modifying and testing a network protocol stack that includes a plurality of
3 protocols, the one or more instructions including instructions which executed by one or
4 more processors, cause the one or more processors to perform:

5 executing a test of said network protocol stack, the test modeling each protocol of
6 said plurality of protocols of said protocol stack as separate objects, the test simulating
7 communication between a plurality of devices using said network protocol stack;

8 receiving a command comprising code to modify one of said plurality of protocols
9 in said protocol stack; and

10 performing said modification on said one of said plurality of protocols in said pro-
11 tocol stack while the test is executing, by changing said separate object corresponding to
12 said one of said plurality of protocols in said protocol stack.

1 16. (ORIGINAL) The medium of claim 15 wherein said command is received in inter-
2 preted code.

1 17. (PREVIOUSLY PRESENTED) The medium of claim 15 wherein said one or more
2 instructions further include instructions which executed by one or more processors, cause
3 the one or more processors to perform:

4 determining said one of said plurality of protocols in said protocol stack to modify
5 responsive to receiving said command.

1 18. (PREVIOUSLY PRESENTED) The medium of claim 15 wherein said one or more
2 instructions further include instructions which executed by one or more processors, cause
3 the one or more processors to perform:

4 determining whether said command is adding a message to said one of said plu-
5 rality of protocols; and

6 adding said message to said one of said plurality of protocols.

1 19. (PREVIOUSLY PRESENTED) The medium of claim 15 wherein said one or more
2 instructions further include instructions which executed by one or more processors, cause
3 the one or more processors to perform:

4 determining whether said command is to remove a message from said one of said
5 plurality of protocols; and

6 removing said message from said protocol.

1 20. (PREVIOUSLY PRESENTED) The medium of claim 15 wherein said one or more
2 instructions further include instructions which executed by one or more processors, cause
3 the one or more processors to perform:

4 determining whether said command is to modify an existing message in said one
5 of said plurality of protocols;

6 removing said existing message from said one of said plurality of protocols; and

7 adding a new message to said one of said plurality of protocols including said ex-
8 isting message with modifications in said command.

1 21. (PREVIOUSLY PRESENTED) The medium of claim 15 wherein said one or more
2 instructions further include instructions which executed by one or more processors, cause
3 the one or more processors to perform:

4 determining whether said command is to modify a state machine of said one of
5 said plurality of protocols; and

6 modifying said state machine of said one of said plurality of protocols responsive
7 to said command.

1 22. (PREVIOUSLY PRESENTED) An apparatus for modifying and testing a network
2 protocol stack that includes a plurality of protocols, the apparatus comprising:

3 a memory configured to store instructions;

4 a network connection device configured to provide connectivity to a network;

5 a central processing unit configured to execute instructions stored in the memory
6 to initiate a test of said network protocol stack, the test simulating communication be-
7 tween a plurality of devices using said network protocol, by emulating at least some of
8 the plurality of devices;

9 an input/output (I/O) device configured to receive a command to modify one of
10 said plurality of protocols in said protocol stack; and

11 a central processing unit further configured to perform said modification on said
12 one of said plurality of protocols in said protocol stack while the test is executing by
13 changing a data structure corresponding to said one of said plurality of protocols in said
14 protocol stack.

1 23. (ORIGINAL) The apparatus of claim 22 wherein said command is received in inter-
2 preted code.

1 24. (PREVIOUSLY PRESENTED) The apparatus of claim 22 further comprising:
2 the central processing unit further configured to determine said one of said plural-
3 ity of protocols in said stack to modify responsive to receiving said command.

1 25. (PREVIOUSLY PRESENTED) The apparatus of claim 22 further comprising:
2 the central processing unit further configured to determine whether said command
3 is adding a message to said one of said plurality of protocols; and
4 the central processing unit further configured to add said message to said one of
5 said plurality of protocols.

1 26. (PREVIOUSLY PRESENTED) The apparatus of claim 22 further comprising:
2 the central processing unit further configured to determine whether said command
3 is to remove a message from said one of said plurality of protocols; and
4 the central processing unit further configured to remove said message from said
5 protocol.

1 27. (PREVIOUSLY PRESENTED) The apparatus of claim 22 further comprising:
2 the central processing unit further configured to determine whether said command
3 is to modify an existing message in said one of said plurality of protocols;
4 the central processing unit further configured to remove said existing message
5 from said one of said plurality of protocols; and

6 the central processing unit further configured to add a new message to said one of
7 said plurality of protocols including said existing message with modifications in said
8 command.

1 28. (PREVIOUSLY PRESENTED) The apparatus of claim 22 further comprising:

2 the central processing unit further configured to determine whether said command
3 is to modify a state machine of said one of said plurality of protocols; and

4 the central processing unit further configured to modify said state machine of said
5 one of said plurality of protocols responsive to said command.

1 29. (PREVIOUSLY PRESENTED) The method of claim 1 wherein said performing said
2 modification while the test is executing performs the test absent recompilation of said
3 network protocol stack or restart of the test.

1 30. (PREVIOUSLY PRESENTED) The apparatus of claim 22 wherein the central proc-
2 essing unit is configured to perform said modification while the test is executing absent
3 recompilation of said network protocol stack or restart of the test.